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AGRICULTURAL COLLEGE
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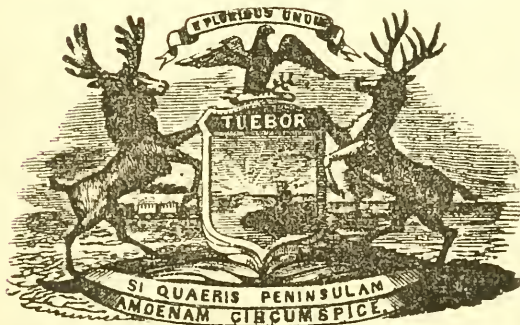
State of Michigan
East

THE

AGRICULTURAL COLLEGE

OF THE

STATE OF MICHIGAN.



266.

LANSING, MICHIGAN:

HOSMER & FITCH, BOOK AND JOB PRINTERS.

1857.

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STATE BOARD OF EDUCATION:

HON. HIRAM L. MILLER, Saginaw City, President of the Board.

HON. JOHN R. KELLOGG, Allegan.

REV. GEORGE WILLARD, Battle Creek.

HON. IRA MAYHEW, Albion, Superintendent of Public Instruction, and *ex-officio* Secretary of the Board.

FACULTY OF THE INSTITUTION:

JOSEPH R. WILLIAMS, President, and Director of the Farm.

CALVIN TRACY, Professor of Mathematics.

LEWIS R. FISK, Professor of Chemistry.

*HENRY GOADBY, Professor of Animal and Vegetable Physiology and Entomology.

*D. P. MAYHEW, Professor of Natural Science.

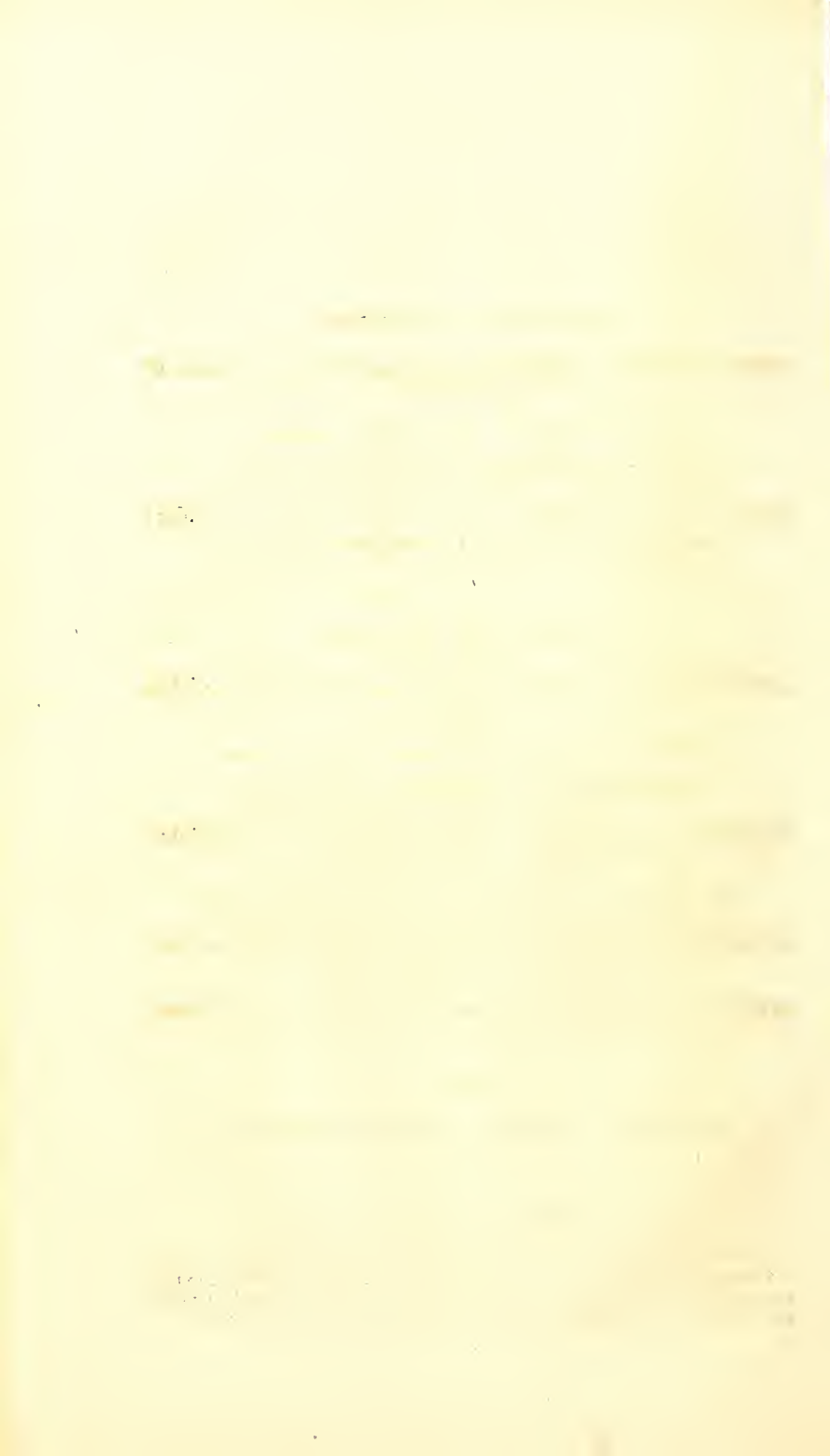
ROBERT D. WEEKS, Professor of English Literature and Farm Economy, and Secretary.

JOHN C. HOLMES, Professor of Horticulture, and Treasurer.

ENOCH BANCKER, Assistant in Chemistry.

JAMES M. SHEARER, Steward.

* These gentlemen have not entered upon the performance of their duties. Dr. Goadby will do so when the Board of Education notify him that his services are required, and Mr. Mayhew as soon as an existing engagement permits.



STUDENTS.

NAMES.	POST OFFICE.	COUNTY.
Sidney M. Abbott,	Farmington,	Oakland.
Gad M. Adams,	Chelsea,	Washtenaw.
Henry L. Barney,	Dowagiac,	Cass.
Adams Bayley,	Big Beaver,	Oakland.
Leonard V. Beebe,	Stockbridge,	Ingham.
Isaac D. Benham,	Windsor,	Eaton.
Henry D. Benham,	Windsor,	Eaton.
Ransom M. Brooks,	Dearbornville,	Wayne.
Joseph Gilbert Bryan,	Farmington,	Oakland.
Harvey Bush,	Fowlerville,	Livingston.
Russel B. Callahan,	Sanford,	Ingham.
Henry B. Carpenter,	Windsor,	Eaton.
William W. Carpenter,	Howell,	Livingston.
Mason D. Chatterton,	Sanford,	Ingham.
Walter M. Chester,	Detroit,	Wayne.
Henry C. Christiancy,	Monroe,	Monroe.
Albert E. Cowles,	Lansing,	Ingham.
Henry N. Curtis,	Howell,	Livingston.
DeWitt C. Cutler,	Lansing,	Ingham.
Stephen W. Duncombe,	Keeler,	Van Buren.
John A. Elder,	Lansing,	Ingham.
George C. Everts,	Grand Rapids,	Kent.
Charles E. Farrington,	Milan,	Monroe.

NAMES.	POST OFFICE.	COUNTY.
Thomas W. Farrington,	Milan,	Monroe.
Delos Flint,	Novi,	Oakland.
Charles T. Foster,	Lansing,	Ingham.
Henry B. Frost,	Eaton Rapids,	Eaton.
Stephen Galloway,	Hamburg Village,	Livingston.
Alanson E. Goodrich,	DeWitt,	Clinton.
Solon E. Grant,	Jackson,	Jackson.
William M. Greene,	Lansing,	Ingham.
Josiah T. Hammond,	Jackson,	Jackson.
David E. Hinman,	Buchanan,	Berrien.
Charles E. Hollister,	Nebraska,	Clinton.
George P. Humphrey,	Sanford,	Ingham.
Horatio Ives,	Unadilla,	Livingston.
Samuel L. Kilbourne,	Sanford,	Ingham.
Jared M. Knapp,	Bellevue,	Eaton.
Charles D. Lewis,	Lansing,	Ingham.
Henry G. Lewis,	Lansing,	Ingham.
Mortimer Markham,	Gaines' Station,	Genesee.
Orlando Markham,	Gaines' Station,	Genesee.
Charles J. Monroe,	Lawrence,	Van Buren.
Nathan D. Mussey,	Romeo,	Macomb.
George O. Nelson,	Detroit,	Wayne.
Marcus H. Peck,	Pontiac,	Oakland.
Victor Phillips,	Lansing,	Ingham.
William W. Preston,	Fredonia,	Washtenaw.
Merritt C. Skinner,	Lansing,	Ingham.
Merritt B. Snyder,	Hanover,	Jackson.
Enos S. Stedman,	Unadilla,	Livingston.
Ulysses Stedman,	Unadilla,	Livingston.
Albern K. Sweet,	Burns,	Shiawassee.
James Taylor,	Unadilla,	Livingston.
Seneca N. Taylor,	Oakland,	Oakland.
Griffin D. Thurston,	Sturgis,	St. Joseph.

NAMES.	POST OFFICE.	COUNTRY.
George G. Torrey,	Birmingham,	Oakland.
Heman J. Vandusen,	Novi,	Oakland.
Solon A. Whitcomb,	Detroit,	Wayne.
George N. Walker,	Sanford,	Ingham.
Webster A. Wood,	Livonia,	Wayne.

CONSTITUTIONAL PROVISION.

The Agricultural College of the State of Michigan was established in obedience to a requisition of the Revised Constitution of the State, adopted 15th August, 1850, which may be found in Art. 13:

“Sec. 11. The Legislature shall encourage the promotion of intellectual, scientific, and agricultural improvement; and shall, as soon as practicable, provide for the establishment of an Agricultural School. The Legislature may appropriate the twenty-two sections of Salt Spring Lands now unappropriated, or the money arising from the sale of the same, where such lands have been already sold, and any land which may hereafter be granted or appropriated for such purpose, for the support and maintenance of such School, and may make the same a branch of the University, for instruction in agriculture and the natural sciences connected therewith, and place the same under the supervision of the Regents of the University.”

ACT OF ORGANIZATION.

The Legislature, in order to carry out the foregoing provision of the Constitution, at the session of 1855 passed the following act:

[No. 130.]

AN ACT for the establishment of a State Agricultural School.

SECTION 1. *The People of the State of Michigan enact,* That the President and Executive Committee of the Michigan State Agricultural Society, be and are hereby authorized to select, subject to the approval of the State Board of Education, a location and site for a State Agricultural School, within ten miles of Lansing; and subject to such approval, contract for and purchase for the State of Michigan, such lands, not less than five hundred acres, nor more than one thousand acres, in one body, for the purpose of an experimental farm and site for such Agricultural School: *Provided,* That the amount to be paid for such farm and site shall not exceed fifteen dollars per acre, and that the conveyance or conveyances be made to the State of Michigan.

Sec. 2. There is hereby appropriated twenty-two sections of Salt Spring Lands, or the money arising from the sale thereof, referred to in article 13, section 11, of the Constitution of the State of Michigan, for the purchase of land for such site

and location, and the preparation thereof, the erection of buildings, the purchase of furniture, apparatus, library and implements, payment of professors and teachers, and other necessary expenses to be incurred in the establishment and successful operation of said school.

Sec. 3. Upon the execution and delivery to the Secretary of State of the proper conveyance or conveyances of the land, the purchase of which is provided for in the first section of this act, and the certificate of the Attorney General that he has examined the title to the same, and finds it unencumbered, and that the conveyance or conveyances are executed in due form, and a certificate of the President and Secretary of the Board of Education, that the same is in accordance with the contract or contracts for the purchase of the same, and that the location has been approved by them, the Auditor General shall draw his warrant or warrants on the State Treasurer for the amount of such purchase, in favor of the party or parties to whom such sum or sums shall be due, payable out of said salt spring lands, or money accruing from the sale of the same; and the said certificates in this section mentioned, shall be filed and preserved in the office of the Secretary of State.

Sec. 4. Upon the purchase of such location and site, there shall be established on such site, under the direction and supervision of the State Board of Education, an Agricultural School, by the name and style of the Agricultural College of the State of Michigan, and the chief purpose and design of which shall be to improve and teach the science and practice of agriculture.

Sec. 5. The course of instruction in said College shall include the following branches of education, viz.: an English and Scientific Course, Natural Philosophy, Chemistry, Botany, Animal and Vegetable Anatomy and Physiology, Geology, Mineralogy, Meteorology, Entomology, Veterinary Art, Mensuration, Leveling and Political Economy, with Book-

Keeping and the Mechanic Arts which are directly connected with agriculture, and such other [studies] as the Board of Education may from time to time see fit to prescribe, having reference to the objects specified in the previous section; and the said Board may establish such Professorships, and employ such Professors and Teachers, to be called the Board of Instruction of said College, for the instruction aforesaid, as they may judge best for such object: *Provided*, The sum paid such professors and teachers for the first year after said College shall go into operation, shall not exceed the sum of five thousand dollars, and for the next year, not exceeding the sum of six thousand dollars, and for any years thereafter such a sum as the State Board of Education may deem necessary for the successful operation of the institution. Tuition in said institution shall be forever free to pupils from this State, and any number of pupils may be admitted who shall apply from any part of this State: *Provided*, That in case more pupils apply than can be accommodated or taught, then said Board shall adopt some equitable plan, giving to each county a number according to the ratio of population, as it shall appear from the census last taken; and in that case, those from each county shall be admitted in the order in which they shall apply, until the quota of such county be full.

Sec. 6. There shall be two scholastic terms in each year, the first term commencing on the first Wednesday in April, and ending on the last Wednesday in October, the second term commencing the first Wednesday in December, and ending on the last Wednesday in February; and no pupil shall be received for less than one term, unless by special permission from the Board of Instruction.

Sec. 7. The Board of Education, upon consultation with the Board of Instruction, shall, from time to time, fix and establish rules as to the number of hours which shall be devoted to manual labor and to study, which may be different in different terms or seasons; but during the first term in

each year, the time devoted to labor shall not be less than three nor more than four hours each day; and no student or pupil of said College shall be exempt from such labor, except in case of sickness or other infirmity.

Sec. 8. The Board of Education shall appoint one of the professors in said College to be President thereof, and one to be its Secretary, and one to be its Treasurer; and the Board of Instruction may establish such rules and regulations, from time to time, for the government of said College and instruction therein, as they may deem proper in any matter not regulated by the Board of Education; and the rules and regulations adopted by such Board of Instruction, shall remain in full force until altered by said Board of Education. And said Board of Instruction shall have power, subject to the approval of the Board of Education, to establish By-laws for the government and discipline of the pupils of said College, in regard to conduct and behavior, and to affix such pecuniary penalties as they may deem proper, and to prescribe the causes for expulsion or dismissal of any such pupil, which By-laws shall have the force of law, unless altered, modified or repealed by the Board of Education or the Legislature; and the Board of Education shall fix the compensation to be credited or paid for the labor performed by pupils, under the provisions of section seven of this act.

Sec. 9. The President of said Board of Instruction shall preside at all meetings of said Board, except in case of sickness or absence; in which case the Board may elect one of their number President *pro tempore*; and it shall be the duty of the President to see that all the regulations established by this Act, by the Board of Education, and by the Board of Instruction in regard to the government and instruction in said College, be enforced.

Sec. 10. The Secretary of said Board of Instruction shall record all the proceedings of said Board, and all regulations and by-laws for the government of said College, and shall

publish the same, and furnish a copy thereof to the Governor of this State, to each member of the Board of Education, to the county clerk of each county, and to the clerk of each organized township in this State. He shall also keep a full record of all improvements and experiments made on said lands, their cost and results. He shall also keep a careful account with each field, in connection with a plan of the farming lands or farm, exhibiting the position of each, in which shall be shown the manner and cost of preparing the ground, the kind of crop, time of planting or sowing, the after condition, the time and manner of harvesting, the labor devoted to each process and its cost price, with the cost of preparing the matured crop for market, and the price for which it was sold, and of such other matters as the Boards of Education and of Instruction, or either of them, may require of him; and he shall furnish a copy thereof at the end of each term to the President of the Board of Education; and the said record shall, at all reasonable hours, be open to the inspection of any citizen of this State.

Sec. 11. The Treasurer shall receive and keep all moneys arising from the sale of products of the farm, and from fines and penalties that may be imposed, and shall give bonds in such sum as the Board of Education may require. He shall pay over all moneys upon the warrant of the President, countersigned by the Secretary, on account of such contingent expenses of the institution as may arise. He shall render annually, in the month of December, to the Board of Education, and as often as required by said Board, a full and true account of all moneys received and disbursed by him; stating for what received and paid, and shall produce vouchers for such payments. The surplus money, if any remain in his hands at the time of rendering such account, shall, if required by said Board, be paid over to the State Treasurer, to be placed to the credit of said institution.

Sec. 12. After said College shall have commenced its first

term, the Superintendent of Public Instruction shall appoint visitors for the same, who shall perform the like duties required of such visitors by law, in reference to the State Normal School.

Sec. 13. This act shall take effect immediately.

Approved February 12, 1855.

LEGISLATION IN 1857.

The Legislature of the State, at the last session, made provision for further maturing and sustaining the Institution during the next two years, by the liberal appropriation of Forty Thousand Dollars, according to the terms of the following Act:

[No. 142.]

AN ACT making an appropriation for the State Agricultural School, and to amend the act entitled "an Act for the establishment of a State Agricultural School," approved February twelfth, eighteen hundred and fifty-five.

SECTION 1. *The People of the State of Michigan enact,* That there be and there is hereby appropriated out of the Treasury of this State, the sum of forty thousand dollars, for the erection of buildings, purchase of furniture, apparatus, implements and library, payment of Professors and Teachers, and to improve and carry on the Farm, and other necessary expenses to be incurred in the successful operation of said School during the years eighteen hundred and fifty-seven and eighteen hundred and fifty-eight; which sum shall be drawn from the Treasury on the presentation of the proper certificates of the Board of Education to the Auditor General, and on his warrant to the State Treasurer.

Sec. 2. Section second of the act entitled "an Act for the establishment of a State Agricultural School," approved Feb-

ruary twelfth, eighteen hundred and fifty-five, is hereby amended so as to read as follows, to-wit: That there is hereby appropriated twenty-two sections of Salt Spring Lands, or the money arising from the sale thereof, referred to in Article thirteen, Section eleven, of the Constitution of the State of Michigan, for the purchase of land for such site and location, and the preparation thereof, the erection of buildings, the purchase of furniture, apparatus, library and implements, payment of Professors and Teachers, and other necessary expenses, to be incurred in the establishment and successful operation of said School; which sum shall be drawn from the State Treasury on the presentation of the proper certificates of the Board of Education to the Auditor General, and on his warrant to the State Treasurer; but not to exceed in the whole amount the sum of fifty-six thousand, three hundred and twenty dollars, the minimum price of said twenty-two sections, unless the whole proceeds of the sales of said sections shall exceed that sum, and then not to exceed the amount of such proceeds.

Approved February 16, 1857.

LOCATION AND BUILDINGS.

On the 16th June, 1855, the President and Executive Committee of the State Agricultural Society—present, A. Y. MOORE, President, J. C. HOLMES, Secretary, and Messrs. S. M. BARTLETT, PAYNE K. LEACH, JAMES BAYLEY, JUSTUS GAGE and JOHN STARKWEATHER—in accordance with the provisions of the foregoing law, selected the tract for the Agricultural Farm offered by A. R. BURR, Esq., of Lansing, consisting of 676 57-100 acres. The selection was approved, and the purchase made. The tract lies three and a half miles directly east from Lansing, and the avenue eastward, starting from the front of the Capitol, would pass in front of the College Buildings. It lies on both sides of the Cedar River, and is regarded as a judicious and admirable location, although it was nearly in a state of nature at the time of the purchase.

Under the Superintendence of Mr. S. M. BARTLETT, of Monroe, a College Building 100 feet by 50, and a Boarding House of nearly equal size, each three stories high, and of brick, have been erected.

To Mr. J. C. HOLMES great credit is due for his indefatigable exertions in all the incipient movements that have resulted in the establishment, so far, of the Institution.

DEDICATION.

A corps of Professors having been chosen, and the Institution prepared for the reception of Students, it was dedicated by the Board of Education to the purposes for which it was designed, with appropriate services, on the 13th day of May, 1857, in the presence of the Governor, several officers of the State Government, and a large concourse of citizens, from various parts of the State.

At 10 o'clock A. M., Hon. H. L. MILLER, President of the Board of Education, called the assemblage to order, with the following brief remarks:

FELLOW CITIZENS—The attendance here to-day, of so large an assemblage of the citizens of the State, to witness and take part in the opening of this Institution, affords me a high satisfaction, and I feel it to be a grateful duty, on the part of the Board of Education, to express the great pleasure it gives them. It manifests a warm interest in the cause of Education; also, in that department of it to which this Institution is to be more particularly devoted. During the time which this Board have been occupied in carrying out the designs which the State had committed to them, they have felt strongly that everything connected with the Institution was new, and that, in pushing them to completion, they would have to undergo peculiar trials, and that they could look nowhere for precedents by which they might be guided. They

are now happy to feel, by your presence, that your countenance and sympathy are with them. In commencing the exercises, with which it has been deemed proper to celebrate the occasion of delivering the College and all its appurtenances into the charge of the Faculty, that that body may now commence the labors of instruction, I deem it peculiarly appropriate to recognize the guardianship of that one Great Being, who is before all human powers, and we will now commence our exercises by reading a portion of the Divine Word.

The Rev. Mr. WILLARD, a member of the Board, then rose and read in an impressive manner, the Third Chapter of the Book of Proverbs.

The Rev. Mr. MAHON made a prayer.

The Hon. JOHN R. KELLOGG, the senior member, in behalf of the Board of Education, then delivered the INSTITUTION and FARM into the charge of the President and Faculty, with the following remarks:

MR. PRESIDENT—It seems to have been a beneficent provision of the great Creator, that all the generations of men that have existed upon the earth, and all of the human race that now live upon it, and which may hereafter be called upon to fill our places; each in their day have had, or have now, or will have their certain duty. Nations have national duties; States have State duties; and individuals have each a certain part to perform, which add to that progress which seems to be the destiny of all. Each and all are responsible, and must, in the end, stand before the great law-giver and life-giver who upholds all things by his omnipotent power, and who will hold the scales of justice, whilst every knee shall bow, and every tongue shall confess, that the neglect of a duty, public or private, will not be a small or unimportant matter. He who gave us life, and gave us duties to perform, has a wise design to be fulfilled, nor may His laws be neglected with impunity.

We, Sir, to-day, as representatives of the State, have a duty to perform, and we find it a pleasant duty—for it is an evidence of that inevitable law which the Creator has extended over all his works. It is, Sir, a duty whose performance marks a new era in the progress of the State. It is a duty, the fulfillment of which, will aid in developing that intelligence, which is the breath of life to civilized nations. This world which we inhabit was made by progressive steps, and its Maker, at the close of each successive day, on a review of his work, pronounced "all very good." Happy, thrice happy for us, if we shall be able to look back on the work we have done, and on our consciences as God has given us ability, be able to say that we have done all things well—it is all very good.

The work which the State has endowed us with the power to carry up to the point, when it passes from the hands of the Board of Education, is peculiar. After making all the preliminary arrangements in regard to fitting this globe for man's inheritance, the Creator seems to have paused to review his work, and "Behold, there was not a man to till the ground." Then out of that very ground was man formed in the image of Him who breathed into his nostrils the breath of life; then was he also endowed with special powers; then was authority given unto him over all things, and then was issued the command that he should go forth and till it; but not till after the seed of sin was sowed by man himself—and yet man's vocation was not yet taken away, for although the curse was upon all, yet in his mercy it was ordained that summer and winter, seed time and harvest, should forever remain, and by the sweat of our brows were we assured that our bread should be earned. What, though the untilled earth send forth its thorns and its briars; labor and toil, by the great primeval law, beautifies and adorns it with perennial harvests, and with the flowers and fruits that are ever a glorious testimony to the wisdom that gave them and us existence.

To you, Mr. President of the College, by the Board of Education, is now committed the charge of this important Institution. To you, Sir, and to the gentlemen associated with you as Professors, and your aids in instructing a large portion of the youth of Michigan, in a knowledge of the capabilities of the soil, is given the glory of carrying out this great work to a perfection which shall elicit the thanks of coming generations. We are well aware that the responsibilities and duties attached to the position which you have accepted, are to be neither light to carry, nor easy to perform. But we have full confidence that you enter upon the charge confided to you, with courage, with a determination to carry out faithfully the design which it has become a State duty to put in execution. From the seed which the State has planted, and which you are to watch in its earliest growth, we look for a harvest worthy of her liberality, and of your own eminent position and character. Let the results be worthy of yourself, worthy of the age in which we live, and of the State of Michigan. With my own prayer that God will give his blessing to your efforts to add to the progress of the age, the country, and the State, we commit into your hands the Agricultural College of the State of Michigan.

The Hon. JOSEPH R. WILLIAMS, President of the Institution, then made the following Address:

*Gentlemen of the Board of Education
of the State of Michigan :*

It seems appropriate, on the assumption of the duties and responsibilities of their position, that in behalf of the Faculty, I should indicate the design, the scope, and the capacities of this Institution, explain some of the difficulties that beset it, and state some of the advantages which may result from its establishment.

The energies and aspirations of our race often feel the want of agencies necessary to their further development, be-

fore such agencies appear. Rarely, however, is any enterprise matured, which the condition of society does not demand. Perfect as our educational systems are, for a long time a great vacuum has remained to be filled.

Besides the Common School and the University, there have been no Institutions, which, taking the student directly from the common school, and omitting studies purely literary and classical, on which he has no years to bestow, yet carry him farther than the University in the application of modern science to the practical business of life, particularly Agricultural Life. In the higher institutions, men were fitted, yea, accomplished, for professional life, but during four years devotion to severe study, few attainments were made valuable to a cultivator of the soil. while tastes and habits were acquired, which created indifference and inaptitude to the most healthy and rational of the occupations of man.

By reason of traditionary neglect and prejudice, seven-eighths of the race, on whose toil all subsist, have been deemed unworthy of mental cultivation, while the smaller fraction, who live, some by most honorable toil and devotion to human interests, and some on the miseries, credulity, ignorance, and even crimes of mankind, have been deemed worthy of the highest advantages of education. The parasite, insinuating itself among the bark, has been carefully nurtured, while the parent tree, grappling its strong roots in the earth, has been neglected.

That the agricultural masses have felt keenly this great want, is evidenced by the simultaneous creation of Agricultural Societies and Periodicals, and the craving for more abundant knowledge. Colleges are springing from the same necessity. New York and Pennsylvania are maturing, and two or three other States are taking the initiatory steps towards establishing Agricultural Colleges. Here, on the very margin of the cultivated portions of our country, where the "forests primeval" are just vanishing before the encroach-

ments of civilization, the youthful and vigorous State of Michigan, first among her sister States, dedicates this Institution to the instruction of men who are devoted exclusively to the cultivation of the earth. Established on no precedent, it is alike a pioneer in the march of men and the march of mind. It is peculiarly fit that such an enterprise should be founded on the confines of the country, which a native poet, Whittier, so gushingly describes :

“The rudiments of empire here,
Are plastic yet and warm,
The chaos of a mighty world
Is rounding into form.”

The elements of the Institution around us, are rough and crude, but even in the embryo, we recognize an enlightened forecast, that would do honor to those venerable Commonwealths which have stamped their indelible impress on the history of mankind.

I will, at the outset, deal with some of the objections to this Institution. Men will brand it as an experiment. They will demand results before they are willing to afford aid or sympathy. Even legislators pause in maturing the plan, which in its design and nature, must be comprehensive or prove abortive. They propose to afford it a liberal endowment, and place it on an immutable foundation, if it shall prove successful. They propose to allow us the range of waters, when we have learned to swim on dry land.

The charge that an enterprise is an experiment has no terrors for me. When Clinton was promoting his great canal project, it was denounced as the insane vision of a theorist, and his surveys were branded as imposture. Yet these lands you occupy, and large portions of the north-west, now covered with thriving communities, would have been to this day vast solitudes, had his experiment been crushed. Throughout Europe, even in England, they use sickles to cut wheat. To them the cradle scythe would be an experiment. When

McCormick's Reaper was exhibited at the World's Fair, it was ridiculed by a leading London periodical, as an ugly cross between a flying-machine and a windmill. When Jethro Wood's cast-iron plow, which has saved to the farmers of this country tens of millions of dollars, was first introduced, it met with unsparing ridicule. The first man who budded a fruit tree was doubtless regarded as a greater dolt than the subscriber, a few years since, to an agricultural paper; and the man who first plowed in clover to renovate the soil, his neighbors doubtless advised to go to the Lunatic Asylum, or join the Agricultural Society. The first attempt to place an iron shoe on a horse's hoof, was doubtless ridiculed as an attempt to improve a limb rightly fashioned by the Creator. It is less than a century since people were mobbed in England, for attempting the introduction of a saw-mill, insisting on the prescriptive right of the laborer to the employment of cleaving lumber with wedges. It is said that no physician who had reached the age of forty, embraced at its announcement, or ever admitted, Harvey's discovery of the circulation of the blood.

The next objection urged to this Institution will be its Cost, and the alleged taxation necessary to its support. The Institution has been initiated and thus far matured, exclusively from the \$56,000 derived from Salt Spring Lands donated to the Territory of Michigan by the general government, and not a dollar of the additional \$40,000 appropriated by the last Legislature, for use during the next two years, is yet consumed. In the next place, the railroads and mining corporations of the State, pay into her treasury a large specific tax, and it seems the plainest exercise of justice, to devote moneys so levied to enlarge the intelligence, and increase the production of the State.

It becomes men to examine the whole subject of taxation, and discriminate against that only which is oppressive or of doubtful utility, and bear with cheerfulness that which is

fraught with beneficent results. Our national government is now annually expending over \$70,000,000. That sum is nearly all consumed in supporting destructive agencies. The Army costs more than \$18,000,000, and the Navy more than \$12,000,000. "They toil not, neither do they spin." The Patent Office is designed to foster and promote inventive genius, to abridge human labor, and to bring comfort to every door. Yet, while vast appropriations are made for other agencies, none are made for this. The only creative and positively producing function of the government is compelled to support itself. The fees exacted from inventors, support the Bureau. It is true, however, that \$75,000 per annum have been appropriated for the purchase and distribution of seeds, plants, cuttings, &c., and the Annual Agricultural Report is printed by Congress. The whole sum paid by the government for the promotion of Agriculture, may amount to \$250,000 per annum, out of more than \$70,000,000 expended—one two hundred and eightieth part of the whole. We have a Senate at Washington, of the great statesmen of the nation. A few weeks ago it revised its Committees, and abolished the Committee on Agriculture. So the Senate of your country recognizes in its organization, no such national interest as Agriculture. Alexander of Russia does better, for the ruling industry of his people is made an object of solicitude in a department of his government.

The United States Agricultural Society, at its annual meeting in January last, strongly urged the appropriation of 500,000 acres of land by Congress, to each of the States, for the promotion of Agricultural Education. The Legislature of Michigan, in 1850, anticipated them, by instructing their delegation in Congress to ask 350,000 acres of land, for the establishment of Agricultural Schools in this State. Possibly, Congress may hereafter deem it as sagacious to enlighten the future occupants of the continent, as to construct railroads for transporting them. Vast grants of lands have re-

cently been made to the North-Western States. Without disparagement to other enterprises, it is a self-evident proposition, that no appropriation can be so far-reaching and so vital, even to the material prosperity of new communities, and so prolific of incalculable results, as donations for education. Let us hope, therefore, that in due time the national government will permanently endow this and similar institutions, and relieve the people of Michigan, and other States, from every duty but a benignant guardianship.

It would be well, therefore, for a generous citizen to consider whether the enterprise before us, designed to multiply his earnings and enjoyments, and elevate his calling to a higher dignity, is worthy of the captious and trivial objection that it may cost him an insignificant taxation. Two cents per annum for each inhabitant, embracing the next ten years' would probably cover appropriations for the College as ample as those of last winter, and far more than could be required. It would not amount to six kernels of corn per day. If an Institution should perish from such a consideration, the wisdom of the people will degenerate to a level of the wisdom of the Senate.

The next objection is embraced in a question triumphantly asked, "How can you teach a man to plow or to hoe?" that is, "How can his practical skill be improved?" I contend that even in this narrow view, the mere application of labor, there is much to be learned. An English ditcher will dig three rods of ditch to your two, and do it better. An English plowman, taught with implements far inferior to yours, will strike a straighter and far more even furrow than you can. If a farmer's practical skill cannot be improved, he had better abandon the threshing machine and take up the flail, and had better resume the sickle for harvesting his grain. The average production of corn in Michigan is twenty-three bushels per acre; of wheat, less than thirteen bushels per acre, and of wheat in Ontario, a model county in New

York, fifteen bushels per acre. Now, if the practice is right, the farmer does not understand the true principles of culture. If his theory is right, then his practice is wrong. Probably theory and practice are both wrong, and there is room for vast improvement in both. In some of the old countries in Europe, the wheat crop runs up to forty, fifty, and even seventy bushels per acre, and their average crop is nearer forty than thirty bushels per acre. The difference between thirteen bushels and thirty bushels per acre would make an annual gain to Michigan, during the next six years, of \$10,000,000 at least. Have the wheat growers of Michigan nothing to learn?

The exhaustion and deterioration of the soil has been estimated at ten cents per acre, annually. There are about 130,000,000 acres of arable land in the United States. There must be a loss of \$13,000,000 annually, therefore, mostly for want of practical skill in resuscitation of the land. The cultivated land of Michigan is 3,000,000 acres. The loss to Michigan, therefore, from this cause, is about \$300,000 annually. This exhaustion of the soil is a great National practical error and sin. Has the farmer nothing practically to learn?

Pass along any great thoroughfare, and you will soon come to a farmer who yards his cattle in the public highway, wastes the manure which should fertilize his fields, and allows the public to thread their breakneck passage among them. The next, perhaps, feeds his corn whole, and loses a third of its nutriment. Another deprives his pigs of light, and their growth stops. Another allows pestilential gasses, generated under his barn, to be inhaled by his stock. Another allows his cattle to drink out of mere mud holes, instead of pure water. Another allows his sheep in winter to go without any water at all. The next exposes his calves and colts to the wintry storms, thus arresting their growth, while it would absolutely cost less to keep them growing and housed. The

next has perhaps not a fit tool to work with efficiency on his whole farm. Another sows poor or mixed seed, or not half enough, and as a consequence reaps half a crop. The next ploughs his land but three or four inches deep. He has little faith in deep ploughing and thorough pulverization, but has full faith in the signs of the zodiac, the moon and luck. He believes in good luck while putting in the seed, and has a realizing sense of ill luck in harvesting, costly experience in both theory and practice.

I could extend this list of practical errors to an indefinite length. Such facts prove, that instead of less, the farmer has more to learn practically about his business than any other man in the world. In fact, one-third of the industry and energies of the farmers of our country, are literally wasted in consequence of ignorance, and defiance of all rules of thrift and economy. The same recklessness among men in other pursuits, would result in immediate bankruptcy and starvation.

Some ten years ago the potatoe rot seized the staple aliment of the people of Ireland, and before a year had expired, a million of human beings fertilized her soil. The disease must be caused by a violation of some vital law of germination and growth of the potatoe. That violation, I have no doubt, can and ought to be discovered. Have the peasantry and landlords of Ireland nothing practically to learn? Several different insects commit ravages on the cotton plant. They fasten themselves upon it, at every stage of growth, from the germ to the boll. Has the cotton grower nothing to learn in arresting the ravages of these destructive pests? Several different insects infest the wheat fields of our country. They take it in all its various stages, and sweep a region like the locusts of Egypt. Have the wheat growers nothing to arrest and investigate in regard to this destructive enemy? A malady has been sweeping off the swine in a large portion of the middle and western States, designated after a fearful

scourge of the human race, the Hog Cholera. The loss is estimated by millions of dollars. Whether caused by contagion, or whether it originates in some error of feeding, a law of the nutrition and growth of the animal is violated. Have the Hog growers nothing to learn?

The idea that perfect farming consists only in aptness at labor and strength of muscle, is at war with true philosophy. The sailor before the mast splices a rope, steers the ship, or rows a boat with perfect skill. Hurléd into the ocean, he rides the waves with composure, and is saved in countless exigencies, where a landsman would surely have perished. Tossed fearfully on the yard arm, amid the play of the lightnings, and sleet, and the tempest, he reefs the sails with unperturbed coolness. Is he a perfect sailor? Oh no! Silent, thoughtful students are at work in the National Observatories at London and Washington, preparing the Nautical Almanac. Maps and Charts indicating the shoals and reefs and coasts are prepared for him at great expense and care. Prof. Maury has published his Directions for taking advantage of the winds and currents. By all the aids and appliances which science has furnished, the mariner can indicate upon the trackless ocean, almost the precise spot he occupies, and sleeps with composure and confidence. But is the profound scholar, from whose deductions the ship is worked, the perfect sailor? Oh no! But the man who unites the highest practical aptness and skill in working the ship, with the scientific comprehension that enables him to use all the deductions of Nautical Science, he is the most perfect sailor. He may be found among the officers of the ship. The most perfect union of principles and practice constitute the sailor. What is the moral? Why, that in Agriculture, the most abundant knowledge of all known natural laws, and all applicable scientific principles, must conspire with the most perfect skill, aided by energy, industry, economy, temperance and health to make the most accomplished farmer.

The difficulties which present themselves at the very threshold of this enterprise, it will be well to consider.

We have no guides, no precedents. We have to mark out the Course of Studies, and the whole discipline and policy to be followed in the administration of the Institution. There are numerous Agricultural Schools in Europe, but while an inspection would afford important vital suggestions, they would afford no models for us. The Schools in Europe, in the nature of the case, must for the present, be designed for the stewards, factors, and hirers of the soil, who use the laborers as serfs and instruments. In this country, the landlord, farmer or middle man, and laborer, are united in the same man, the lord of his own acres, and by necessity he must have an education, to suit his own fortunate condition.

Again, the Institution commences here, almost in a virgin forest, to be subdued and subverted, before it becomes an instrument to maintain the self-sustaining character of the Institution, or a means of ample illustration. The labor and the appropriation must be largely bestowed, in creating what it is desirable that we should have at ready command. Thus the difficulties of putting this new enterprise in operation, are enhanced, and the sphere of early usefulness greatly cramped. It would not be very surprising, if the already enlightened man, living on a long cultivated farm, or a prairie garden, obtains few lessons from the first practical results here. The almost famine that now exists in these regions in regard to provender for beasts, and exorbitant price of articles of human consumption, present a serious, though temporary obstacle. However great these early embarrassments, many vital principles can be taught constantly, and even in the early clearing and preparing a farm for further use.

The want of a permanent endowment will act as a discouragement. In its infancy, the Institution must rely on the caprice of successive Legislatures. The adoption of a

permanent policy, requires a stable and reliant support, that will carry it through adversity, regardless alike of the frowns or smiles of indifference, ignorance or malice.

Friends and enemies will demand too much, and that too early. The acorn we bury to-day, will not branch into a majestic oak to-morrow. The orchard we plant this year, will not afford a harvest of fruit the next. The Institution itself, like the seeds, the plants, the trees, the breeds, the very implements which come under its ordeal, requires patience, wisdom, time, for trial and development.

The plan of the Institution is foreshadowed, and partially defined in the law of its organization. A system of instruction must now be adopted. It is proposed to take some of the youth of the State from the Common School, and give them thorough instruction in those natural sciences and practical arts, which conspire to aid men in the cultivation of the earth. It is proposed to do for the farmer what West Point does for the soldier; what the recently established Scientific Schools of our country do for the machinist or engineer, or the Medical Course of studies does for the physician. For the Board of Education to proclaim now, a fully matured plan, is impossible. Experience may demand a different policy, from what now seems imperative. What the chief features of the Institution must be, and what its comprehensive scope and capacities ought to be, can, however, be sufficiently indicated.

Heretofore a vast majority of young men have been barred from the advantages of a collegiate education. Free tuition is here supplied. An ample homestead is generously furnished by the State, where it is the duty and the privilege of the student to be employed, not less than three, nor more than four hours per day. The remuneration, after the estate is subdued and rendered productive, ought chiefly to board the student, leaving but a few expenses incumbent upon him.

All educational systems are faulty, aye, pernicious, that

do not embrace physical health and development with intellectual culture. "A sound mind in a sound body," should be the aim and object. An amount of labor that will invigorate without fatiguing the system, ought to be as profitable and exhilarating, as it is necessary.

At the outset we are met with the objection, that all attempts at associating labor with the acquisition of knowledge, in seminaries of learning, have proved failures. Sometimes, however, the labor has been mere steady drudgery, in close apartments, and was illustrative of no truth. Sometimes labor has been permitted to a portion of the students, who thus elected to eke out their means, while a larger class of daily associates were entirely exempt. Thus castes were created, where, of all the world, there should exist a warm and brotherly sympathy. That manual labor is incompatible with intellectual growth, is contrary to philosophy and experience. Sedentary employment is much more likely to be so. Vigor of body gives vigor to the brain. In the Polytechnic Schools of Europe, and at the Military Academy at West Point, in our own country, the student is often engaged in severe physical exercise for many hours daily. But there, culture of mind and body are indissolubly connected, and the exercise becomes with many, the charm of their student life. Surely the labor that creates instead of destroys, and which causes the earth to bloom with luxuriance, and beauty, and groan under its abundance, should be as captivating as that, which is bestowed in reducing butchery to an exact science, and which recognizes occasional desolation of the earth, and wholesale destruction of the race, as a necessary and normal condition.

How untenable these objections are, is evidenced by the fact, that gymnastic exercises are established in many classical institutions. It is only when labor becomes productive, that it ceases to be honorable, a preposterous idea that needs to be exploded.

There are scores of men, whose distinction was acquired by mental application during hours snatched from avocations requiring the severest labors. The individuals who exhibit the finest physical and mental combination, are the soldier, the navigator, the merchant, the engineer, and but occasionally the professional man and the farmer. Generally the professional man is exhausted by too severe devotion to mental labor, while the farmer suffers from the want of educational advantages. Our countryman, Dr. Bowditch, whose name is imperishably enrolled by the side of those of La Place and Herschel, was all his life engaged in severe and apparently engrossing business. Elihu Burritt made his greatest acquisitions, while yet at his anvil. Ask any graduate of the University, who has acquired distinction, and he will tell you that the acquisitions of his four collegiate years are insignificant, compared with those made amid severe and engrossing labors, bodily and intellectual, of his subsequent life. Labor, in fact, is the doom of man, and intellectual culture the incident.

But if manual labor has failed in all other Colleges, it ought not to fail here, where it is inseparably connected with the acquisition of knowledge. Thus allied, the employment should be a charm instead of a drudgery. Practical labor in this Institution, is the vital, cementing, invigorating influence, that will give it dignity, and it is hoped, complete success. In former times, the tiller of the soil was as little capable of thought as the brute he drove before him. He was brother to the clod he turned into the furrow. In fact, he was called a clod-hopper, a villain, a serf. But all this should be reversed. All nature teems with objects of beauty, and rational study, to a cultivated mind, rendered capable of appreciation of her charms. The great poet and prophet of our mother tongue, long before modern science had showered a flood of light on the subject, found

“Sermons in stones, books in the running brooks,
And good in every thing.”

An Agricultural Library should be gathered here, more perfect than any which the country now affords. All knowledge relative to the Agriculture of the past, and its history, its progress, and its condition in modern states, should be accessible to the students. The library should embrace a wide range of science, law, literature, history, philosophy, medicine, &c. The application of science to the pursuits of the farmer and the mechanic, afford apt and conclusive illustration of the kindred and mutually dependent nature of all industry and all science. The Library should, therefore, be a noble and a comprehensive one. The subject commends itself to liberal citizens, whose public spirit may prompt them to promote this part of the enterprise by voluntary contributions.

A Museum of Models of Agricultural Implements, domestic and foreign, should be preserved. The crude implements of past times, and of other countries, and those used by the most benighted toilers of the present age, should be collated, side by side with the ingenious, light, and graceful implements of our own era and country. Inventors, it is hoped, will take pride and satisfaction in depositing models of their inventions. As far as possible, models of machinery and tools used in the mechanic arts may be superadded.

A Chemical and Philosophical Laboratory, second to but few in the country, is already obtained as an indispensable aid, even at the very commencement of the Institution.

Cabinets of Natural Science should be collected, and illustrative specimens of the mineral and vegetable kingdoms, especially of the State of Michigan. Few States are more opulent in mineral resources than our own.

Specimens of Animals, Birds, Fishes and Insects, should be preserved, especially of all animals and insects that either destroy our crops or infest domestic animals and fowls, that

the student may have ample opportunities to study their nature and habits, and if possible discover means to arrest their ravages, and effect their extirpation.

If Agriculture has not become, as it ought to be, a great central Science, which all other sciences should aid to enlarge and promote, certainly Horticulture deserves to rank as one of the Fine Arts. The Institution will embrace, therefore, a Horticultural Garden. Here the student may acquire knowledge, without being exposed to vexatious and expensive experiments, of the most delicious varieties of fruits, which our climate and soil will yield. He may study the destructive agents, such as the pear blight, the curculio, the canker worm, and the numerous parasitical insects that infest our vegetable gardens and orchards. An impressive lesson will constantly present itself, of how tasteful and attractive a homestead may be rendered at a trifling cost. Ripe fruit is a rare luxury; it is conducive to health; it may be a source of great profit. The garden itself will afford living, growing, gorgeous illustrations for scientific examination.

The FARM of nearly seven hundred acres, expands around us. This is the great central feature, the novel idea in an educational system on this continent. The tract possesses great natural capacities. The counterpart of almost every kind of land comprehended within the State, except the prairie, is embraced within its boundaries. Whoever supposes that the estate is to be used merely to test the vagaries of every wild visionary, is entirely mistaken. First and foremost, it is the instrumentality by which the students can earn a portion of their education, and in the meantime ought to afford a perpetual example, of what high intelligence in the laborer, obedience to natural laws, and the most thrifty culture, will produce. To test various modes of cultivation, the effect of rotation of crops, the economy of labor-saving implements, the relative qualities of manures, the results of judicious draining, the relative productiveness of seeds, veg-

etables and fruits, and the characteristics, uses and value of various breeds of stock—to observe critically the nature of diseases to both animal and vegetable life, a far wider field is afforded on a farm of seven hundred acres, than on a small, perhaps isolated homestead, or on farms of any extent, devoted to single or peculiar branches of culture. Thousands of farmers, sanguine of success, refrain from trials which their judgment approves, because they cannot afford the risk. If they run all the hazards, success will enure to the benefit of the whole community. If they fail, the same community hoot at them in derision. But here, trials can be made in entire independence of these considerations, and habits of comparison and discrimination may be acquired, of priceless benefit in subsequent life. A farmer has made a great stride towards success, who actually knows the best from extended observation, and who has become a connoisseur in all that pertains to his calling. The innumerable advantages, indeed, of the estate, as an instrument, a means, an ever open volume of philosophy, constantly unfolding its lessons, it is impossible to enumerate.

The question spontaneously comes to the lips of even friends, "What Course of Instruction is proposed to improve the farmer?" Here, again, details must be conformed to experience.

First, we would begin with the farmer himself. It has been aptly said, that the only part of European agriculture that had not been improved, was the man himself who tilled the soil. Now, there is where we ought to begin. The farmer ought first to be a sound man physically. He should be taught the laws on which his own life and health depend. He should have capacity for thought and action. Morally, physically, intellectually, he must be a man, before he can be a farmer.

A farmer is a citizen, obliged to bear his portion of public burdens, amenable to the laws, and in a humbler or a wider

range, may become an exponent of society. He should be able to execute, therefore, the duties of even highly responsible stations, with self-reliance and intelligence. The constitutions of the Union and of his State, he should comprehend, and the laws and forms relative to township and county officers and their duties. He should be qualified to keep farm accounts, draught ordinary instruments, survey his farm, and level for drains or highways. His native language should be a flexible instrument at his command, which he should speak and write with ease and vigor, that he may impress and instruct others, avert mischief or inculcate truth. A man moved by earnest reflection or deep emotion, should have capacity to give them utterance and force in his mother tongue. The prophets and leaders among men, are those who impress themselves on all around them. These are incidental, yet necessary, though not original and primary objects of the Institution.

A farmer should be a chemist, so far as a comprehension of the principles which affect his daily life and business, is concerned. He may not be an analytic chemist, but he should be familiar with those laws, the observance of which is indispensable to safety and success, and the defiance of which is destruction. When you make a loaf of bread, or a pound of butter, or a barrel of soap, or burn a coal-pit, or make a hot-bed in the garden, or ignite a friction match, or snap a percussion cap, or light a gas burner, you are playing with the most startling chemical laws. The extent of a man's acquirements in chemistry must depend on his taste and aptness, but all should be familiar with those ordinary laws which affect and penetrate our daily and hourly business and life, in country and city, within doors and without.

This science teaches the value, qualities, nature and application of manures. The question of fertilization or sterilization of the earth is here involved. A periodical renovation of the soil is not only the base of agricultural success, but in

fact of all political economy. How vast the difference between leaving the value of fertilizers to mere vague conjecture, or making them the subject of positive analysis and actual demonstration, under the hands of the chemist.

Physiology opens a wide field of study to the farmer, for on the observance of its laws depend the life, health and growth of all animal and vegetable nature. A violation of those laws results in decay and ruin; obedience to these meets with sure reward; defiance to those laws is the ill luck of poor farmers—observance of them is the good luck of the opposite class. This science teaches, that it is a law of growth, that like produces like, the best produces the best, in vegetable life, and the soundest and most symmetrical of animals only perpetuate a like progeny, and that it is actually cheaper to raise a good crop, a good ox, or horse or sheep, than a poor one. Embraced in this study are the wide questions of adaptation of food, its amount, quality, preparation, to the nature and structure of animals.

A farmer should receive instruction in the Veterinary Art from competent instructors, and when the Institution is brought to something like maturity, the farmers of the whole country should be invited to bring their diseased animals together, that they and the student may derive reciprocal advantage from treatment under skilled hands.

Entomology, the Science relating to insects, is worthy of the farmer's attention. As the telescope has brought within the scope of vision unnumbered worlds so deeply buried in the regions of space, that imagination hardly dares to wander there, so the microscope has penetrated in the other direction, and revealed objects too minute for ordinary vision. Entomology is almost a creature of the microscope. Each drop of water is peopled with animalculæ. Vegetation is covered with myriads of minute life. Insects sometimes blight, blast, and sweep with desolation great regions of country, destroying fruits and crops. Other parasites, equally innumerable,

infest the skins of animals, penetrating the surface, and impairing the vital functions of the victims. Observations of insects, their nature, habits and operations, from the larvæ, or eggs, to full maturity, would be of great utility. In cases of the periodical return of these destructive pests, if hundreds of observers could systematically work together, results of value to the world might be arrived at. Two years ago, the wheat midge swept off millions of bushels of wheat in Ohio, Michigan and Indiana. Had there been a known remedy, a sum would have been saved in a single year large enough to endow perpetually fifteen Institutions like this. Such is the importance of searching investigation on this subject. I have no doubt that the day will come when the ravages of many insects will be averted.

A knowledge of the principles of Natural Philosophy, as illustrated in mechanism, the laws of motion, a comprehension of the laws and uses of the wonderful motive agencies of the age, and of electricity and magnetism, the best methods of construction, and relative economy of materials, open further unbounded ranges of useful study and inquiry to the farmer.

Thus the field of research for the farmer has no boundary. New subjects, each in itself sufficient to engross years, constantly crowd upon the attention. The difficulty will be only in the selection. Master all human knowledge on the subject, and yet the greatest truths remain unfathomed. Do you understand any of those influences and affinities by which a plant germinates and grows? Do you understand the process by which a single flower blooms? Do you understand how the clover, vivified by the genial influences of light and heat, gathers from the earth, and the air, the rains and the dews, contributions that make up the growth, and restored to the earth, renovates its exhausted condition? These occult mysteries are beyond your comprehension. The growth of a single spire of vegetation, confounds your wisdom as much as the existence of those nebulæ of worlds, whose light trav-

els thousands of years to reach our planet. His creations are so brilliant and startling, that two centuries since, a chemist would have been hung for a wizard, yet all his analyses and re-combinations are but soap bubbles, compared with the silent and mysterious operations of Nature's great Laboratory all around us and beneath our feet, which clothe the earth with beauty, people it with myriad swarms of animal life, and feed and clothe a thousand millions of human beings. Nature hugs within her bosom her most vital lessons, undivulged. The Newtons and Keplers of Agriculture are yet to appear. The contemplation of these facts should awe us to humility.

The chief end and object in educating the farmer is to teach him to subordinate himself, and all animal and vegetable life around him, to those inexorable laws, moral and physical, the violation of which meets with swift retribution.

A farmer should perpetually bear in mind that one generation of men hold the earth in trust for the next. We are all linked indissolubly to the past by obligations of gratitude, and to the future by the glowing aspirations of hope. Without the recognition by preceding generations of the ties of dependence and affiliation, we could pluck no fruit from the orchards planted a century ago. The delicious peach would have been a bitter almond. We should witness none of that perfection in crops which supply sustenance for the nations, nor in the flocks which whiten the plains, nor the cattle upon a thousand hills. The triumphs of philanthropy as well as of genius, would have been wanting to relieve the sad and terrific history of our race, with its few charming and creditable pages. It is said that in Spain, when a man eats a fruit, he digs a hole in the ground with his heel, and plants the pit or seed by the road side. He thus pays to posterity the debt he owes to his ancestry. Accordingly, along the highways of Spain, the traveler is gratuitously supplied with fruit. Here is an illustration of how trifling and well-direct-

ed acts serve to hold by close bonds of sympathy successive generations of men, and how easily the comforts of industry and civilization are promoted.

A great advantage of such Colleges as this, will be, that the farmer will learn to observe, learn to think, learn to learn. Men engaged in other callings, have constant communion and collision with each other. In the avocations of the city, men are in a constant school. The farmer, isolated and engrossed with labor, feels not the advantage of constant discussion and observation. That discouragement will be partially neutralized here. Three or four years of study, intercourse and discussion, amid the accessories and aids which such an Institution ought to afford, will surely tend both to enlighten and to fit the mind for further comprehension and acquirement. When the bigotry that clings to traditionary errors and practices is superceded by a bold and comprehensive spirit of inquiry, the farmer has a new world opened before him. Every man who acquires thoroughly, even all the information attainable in a College like ours, should become a perpetual teacher, and example in his own vicinity. Thus one of the grand results should be a far wider dissemination of vital Agricultural knowledge.

With superior intelligence, and a pervading economy of methods, less labor and less time to produce equal results, need be employed in manual toil. The legitimate, though perhaps remote results of enlightening the whole Agricultural population, is that leisure will be afforded for still wider individual improvement, and a guaranty of a far larger share of earnings to individual comfort and enjoyment. Thus the tendency of such enterprises is towards a higher civilization.

I have little fear of ultimate failure. If one Institution of this kind should languish, the indications are numerous that the auspicious moment will arrive when success will be achieved. Where a great need is felt and appreciated simultaneously over a great country, it is merely a question of

time, when it shall be successfully met. But there must be a tolerant and hearty co-operation of the people of the State and its functionaries, of the successive students, and of the officers of government and instruction, to whom so sacred a trust is confided. On the great voyage of human progress, the channel is strewn with wrecks, which serve as beacons to warn succeeding voyagers from the shoals on every side.

As to this youthful State belongs the honor of establishing the pioneer State Institution of the kind, and initiating what may prove one of the significant movements of the age, may she enjoy the glory of its complete and ultimate triumph.

After the conclusion of the Address of Mr. Williams, His Excellency, KINSLEY S. BINGHAM, Governor of the State, then addressed the assembly as follows:

Mr. President, and Gentlemen of the Board of Education:

The people of the State of Michigan have acquired honorable distinction for their zeal and success in the cause of Education. Even before they had assumed the powers of a sovereign State, under a Territorial government, with but a few thousand inhabitants, they had a perfectly organized educational system, with their township School Inspector, and School Commissioners, a Superintendent of Public Instruction, and laws imposing the severest penalty for any waste or destruction upon the lands wisely reserved by Congress for the purposes of Education. So when, nearly a quarter of a century ago, the people assembled to form a State Constitution, preparatory to admission into this great Confederacy, they incorporated into that Constitution a provision that "the Legislature shall encourage, by all suitable means, the promotion of intellectual, scientific, and agricultural improvement." And they declared that the proceeds of all lands granted by the United States for the support of schools should remain a perpetual fund, the interest of which should be inviolably appropriated to the support of schools throughout

the State. Provision was also made for a permanent fund for the support of a University. These judicious and timely measures have been faithfully adhered to and enforced. Among the first acts of State legislation was the organization of an educational system, consisting of a complete and thorough establishment of Primary Schools throughout the State, the founding of a University, embracing in the ample scope of its design, nothing less than furnishing to all the inhabitants of the State "the means of acquiring a thorough knowledge of the various branches of Literature, Science, and the Arts." Numerous Professorships were established in all the ordinary college studies, as well as in departments of law and medicine. A department of State Government was also established for the sale and control of the lands, out of which a fund was to be created for the maintenance and support of these institutions. These incipient steps so wisely taken at the formation of our State Government, have been crowned with eminent success. The University is completely organized, and in successful operation. We have a Normal School for the education of teachers, of which our State may justly feel proud. The Primary and Union Schools, greatly improved and improving, draw within their influence nearly every one of the rising generation. Collegiate Institutions, both for male and female, sustained by private enterprise, have sprung up in various parts of the State. Michigan stands, to-day, very far in advance of any of her western sister States, not only in the high standard of public sentiment which maintains her system of education, and in the thoroughness of its organization, but in the judicious management of the means by which a fund has been created for their support.

Yet, notwithstanding the system of education seemed so complete, a deep-seated and universal feeling prevailed throughout the State, that the great staple, Agricultural Interest, was neglected; that while Professorships had been

very properly established to teach Astronomy, Civil Engineering, Medicine, and Law, we needed a school expressly adapted for the farmers' sons, to teach the ennobling science of Agriculture. This prevailing sentiment prompted the Convention of 1850, for the revision of the Constitution, to engraft upon that instrument a provision that, as soon as practicable, the Legislature shall provide for the establishment of an Agricultural School. That "practicable" period, in the opinion of the Legislature of 1855, had arrived, and they passed an act appropriating the twenty-two sections of Salt Spring Lands, referred to in the Constitution, and authorized the Executive Committee of the State Agricultural Society, in conjunction with the Board of Education, to select and purchase the farm for the location of the School. This duty has been happily and satisfactorily performed. A valuable tract of land, of nearly seven hundred acres, has been purchased; very desirable on account of its location—three miles from the Capital—the variety and quality of its soil, its fine timber, the beautiful springs and rivulets by which it is watered, and the noble river which passes through it. Through the well directed efforts of the Board of Education, who are entitled to a vote of thanks of the people of the State, these noble structures have been raised, and these improvements have been made. Professors in the various branches of education have been selected, and to-day, under the most favorable auspices, we have assembled to inaugurate the commencement of the Michigan Agricultural College. Gentlemen, if this experiment (for such we must admit it at present to be) shall prove successful, Michigan, first in many other matters of progress and improvement, will be justly entitled to the high honor of having first established a College to teach the theory and practice of Agriculture. This interesting event, then, inspiring us with hopes of promise for the future, is cause for mutual congratulation.

It is not my intention to discuss at any length the benefits

which the people of this State are to derive from the establishment of this Institution. This has already been alluded to with great ability.

Man derives his sustenance from the soil; and the progress of a people in civilization, in refinement, intelligence and wealth, is marked by the skill with which the earth is tilled. No country can flourish long, or maintain its moral or physical health, where Agriculture is neglected or degraded.

The amount of a farmer's sales, and his purchases, will depend upon the surplus products of his farm, and upon the profits of his labor. If these can be doubled by an improved system of husbandry, we double the substantial wealth of the community, and impart corresponding life and activity to every other branch of business.

One of the highest objects to be attained by the establishment of an Agricultural College, is to elevate and dignify the character of labor. This can only be attained by an increased amount of knowledge, by making the laborer intelligent, by diffusing the light of science all around the pathway of the husbandman, so that an active, enlightened thought shall accompany the hand in guiding the plow, and in all the various operations of the field. In Europe, the people are divided into classes by the accident of birth—crowns and rank, distinction and wealth, are hereditary—labor is degraded, and the laborer is ignorant, superstitious and poor. In those countries where it is most degraded, we find the greatest national weakness and decay. Spain, Portugal, and Italy, are illustrations of this fact. In the Southern States of our own country, the labor is performed by African slaves, and it is deemed the policy of their masters to hold them in the most profound ignorance, and to guard against any approach of knowledge towards their dark minds by the severest legislative prohibitions. It is deemed disgraceful and degrading for the white man to labor. The dreadful consequences which naturally flow from this degradation of labor

are made apparent when we contrast the growth and prosperity, in the elements of national wealth, of Virginia with New York, of Kentucky with Ohio, of Missouri with Illinois, or of Arkansas with Michigan. I flatter myself, therefore, that I trench upon no improper ground, when I say that the interests of this nation, its wealth, its strength, its perpetuity, demand that the labor of the country shall be free labor, guided by intelligence and skill, and that the laborer should be made the equal, in respectability and position, of any other class of community. General Washington, the Father of his country, whose name should always be mentioned with veneration and gratitude, was known to be an intelligent and practical farmer. His tastes for rural life were refined and cultivated, and his beautiful seat on the banks of the Potomac, attracted the admiration of all who visited that delightful spot. He left his dying testimony in favor of free labor by the emancipation of all his slaves; but his estate, falling into the hands of his heirs, has been cultivated ever since by slave labor. A few years since, in the month of June, I visited that venerable plantation, with a curious eye, to see how its farming operations were conducted. I need hardly assure you, for it is but a type of Virginia, that all over its hundreds of beautiful and once productive acres, there were the evidences of dilapidation and decay. It was farmed upon the exhaustive principle. No manure, no clover, no rotation of crops, had found their way into the management of that estate. When a field could produce no longer, it was turned out to rest. It was just the beginning of harvest. The wheat, though small, yielding not more than five or six bushels to the acre, was a beautiful plump berry, indicating what a Virginia soil might produce, with efficient and proper tillage. Turning my attention to one of the shops on the farm, I saw an old negro repairing the rude implements, preparatory to entering the harvest; but none of the highly improved modern farm implements were there. The light

and easy cradle, the handsomely turned three-tined pitchfork, the light, bright hoe and handy rake, were wanting—everything was clumsy, and rude, and old-fashioned. The necessary consequence of this was, that not one-fourth the amount of labor was accomplished, nor one-fourth the amount of production obtained from the estates, upon which repose the ashes of Washington, that might have been, if modern improvement, intelligence, and skill, had been introduced into its management. When I witnessed all this, I felt proud of Michigan—of the advance which her agriculturists had made, of the comforts and improvements which are everywhere visible, and of the character of her intelligent and independent yeomanry.

Formerly, farming was considered a business requiring mere physical power, with which the principles of natural science had little or nothing to do. To plow, to sow, and to gather the crop, was the general routine of farming operations, regardless of the poverty which the practice was inflicting upon the soil, and upon those who owned it. But science and art are now uniting their labors, and are drawing mutual aid from each other on the farm, as they have for some time been doing in the manufactory and in the shop of the artisan. A new era is dawning upon the vision of the farmer—new light is illumining his path, and a new interest and new pleasures are urging him on to improvement. His intellect comes to the aid of his hands; and as he traces effects to their causes, searches for the reason of his failures and disappointments, familiarizes himself with the operations of nature, and devises improvements in his art, his interest is increased, his profits are greatly enhanced, and he appreciates the full dignity of his chosen pursuit. Science is probably capable of rendering more important aid to husbandry than to any other branch of labor, and presents a wider field of useful study to the cultivator of the soil, than to any other class of society.

If this be true, how great is the opportunity, young gentlemen, which is afforded you—an opportunity for which your fathers might have sighed in vain—for it is nothing less than a free education for one of the noblest callings of man. It is hoped that by resorting to this College for your education, you will acquire a high sense of the dignity and respectability of labor. It is no uncommon thing for young men to leave other institutions of learning, with a distaste and a dislike for work—with their physical constitutions enervated, their usefulness impaired, and their days shortened by severe mental application. We trust that your labor here, will aid in securing for you a strong, vigorous, healthy physical development—that your industry will be so directed, as to make labor pleasant and inviting—that your tastes will be refined and your thoughts purified—that instead of the uncertainty and the guess-work which has hitherto controlled farming operations, you will go to your occupation with a confidence which correct knowledge gives—that you will derive great pleasure by the aid of chemistry, in discovering the substances which enter into the composition of the animal and vegetable system—in determining the comparative value of the different articles of food—what is necessary to produce fat, and what bone and muscle—in the scientific investigation of the changes which take place in the seed-bearing plants, in the different stages of their growth—of the nature and character of soils, and of their capacity to produce the various kinds of crops. These are the fields of study to which you are invited, and your Professors will unite with you in making experiments which will lead to correct conclusions. And we also trust, that in investigating and demonstrating the beautiful and wonderful laws of nature, you will be led to admire the wisdom of that great and good Being, who ordained these laws and endowed us with faculties to discover and so control them, as to promote the happiness and well-being of our race.

Mr. President, and Gentlemen Professors, you need no lesson of instruction in your duties from me. The wisdom which has prompted your selection, and the motive which has induced you to accept these honorable positions, is a sure guaranty that the young men placed under your instruction will be reared to become men of thought, and men of action; that you will instil into their minds, both by precept and practice, a proper sense of the dignity and respectability of labor; that you will teach them that the employment which subjects them to the least temptation to depart from strict rectitude of conduct, is an honorable employment; that it will bring them comfort, and competence, and the smiles of an approving conscience; that they will here learn that habits of industry will promote purity of morals, and that purity of morals and purity of life is the only guaranty to usefulness and happiness.

Thus, with the liveliest anticipations, and highest hopes of success, we welcome the FREE AGRICULTURAL COLLEGE among the institutions of learning of the State of Michigan, and bid it God speed. Long may it flourish, an honor to its founders, and an honor to the State.

The audience were greatly indebted to Mr. JOSEPH MILLS, for the presence of a voluntary Choir from Lansing, who sung Mrs. OSGOOD's "Song of Labor," set to appropriate music by Mr. H. INGERSOLL, a portion of WHITTIER's "Seed Time and Harvest," and the following original ode, by I. M. GRAVATH, of Lansing:

O D E .

I. M. CRAVATH.

Hark! hark! hark!

Tiller of the earth!

Thy day of triumph's come!

Science now owns thy worth,

And builds with thee her home.

Lo! at the gate of her temple she stands,

Thy sons she bids enter its walls and behold

Her search out the secrets of earth, till its sands,

Dissolved by her touch, are transformed into gold.

Hail to thee! hail! child of toil!

Shall Science forsake thee? No, never!

We pledge thee her heart and her hand,

And this, her fair Temple, forever!

Hark! hark! hark!

From the distant field

Is heard the plowman's song!

'The soil now its wealth shall yield—

From his efforts hidden long.

Labor shall here learn how potent the charms

For her are wrought out in this classical shade,

And learning, well pleased with this Model of Farms,

Shall take for her emblems the plow and the spade!

Hail to thee! hail! child of toil!

Shall Science forsake thee? No, never!

We pledge thee her heart and her hand,

And this, her fair Temple, forever?

The parting benediction was pronounced by the Rev. Mr.

MOORE.

GENERAL INFORMATION

Since the Institution was opened, inquiries of the Faculty have been very numerous. It is proposed to embody such general information as seems to be demanded, in reply:

ADMISSION.

The terms prescribed to the first class of Students received, were that they should pass a good examination in the branches embraced in a Common School Education, viz.: Arithmetic, Geography, Grammar, Reading, Spelling, and Penmanship.

Numerous applications for admission have been made from other States. By reference to the law of organization, it will be perceived that the privileges of the Institution are not extended to citizens of other States.

The accommodations at present furnished by the State are limited, being for about eighty Students only.

TERM TIME AND COURSE OF STUDIES.

The Summer Term commences on the first Wednesday in April, and terminates on the last Wednesday in October.

The Winter Term commences on the first Wednesday of December, and terminates on the last Wednesday of February.

At an early day it will be determined what will constitute the Full Course of Studies, which will entitle the Student to a Diploma. It will probably embrace four years, and the

Examinations will be thorough in the Branches of Education named in the law, as well as other subsidiary branches.

An ample Chemical Laboratory has been purchased by the Professor of Chemistry, inferior to few in the country, and instruction in that Science will be thorough and practical.

Ample instruction will be given in the Natural Sciences.

The Course of Mathematics will be comprehensive.

The application of Science to the business and arts of life, will be practically illustrated in the field and the Lecture Room, especially where it bears upon Agriculture.

Instruction in Ancient and Modern Languages is not included as an object of the Institution.

A thorough English education is deemed indispensable, including Rhetoric, History, Moral and Intellectual Philosophy, Political Economy, the elements of Constitutional Law, &c., &c.

A nucleus of a Library already exists in voluntary contributions of a few hundred volumes. It is designed to connect a Reading Room with the Library.

EXPENSES AND LABOR.

The Tuition is free.

The Students labor, at present, three hours per day. The maximum rate of wages allowed is ten cents, and the minimum five cents per hour, according to age, capacity and fidelity.

Board will be charged at cost, not exceeding, however, Two Dollars and Fifty Cents per week. It is a subject of regret, that the exorbitant ruling prices of all articles of consumption will make the board high during the first term of the Institution.

The wages allowed each Student will be fixed, and the cost of board computed, on the third Wednesday of June of the current year for the Summer Term, and thereafter on the third Wednesday of July for the Summer Term, and the

third Wednesday of January for the Winter Term. The balance will be struck at those times with each Student, which must be paid by the Student, his parent or guardian, within two weeks from those dates respectively, when the balance is against him, or he will forfeit further privileges in the Institution. In case the Institution is indebted to the Student, the balance will be settled in the same manner.

RULES AND REGULATIONS.

There will be Chapel exercises every morning, and Religious Services every Sunday, at the Institution, the Clergymen of Lansing officiating in rotation.

Students will not be allowed to absent themselves from the vicinity, unless by permission.

Spirituons liquors will not be allowed upon the premises. The use of tobacco will be discouraged.

Exact conformity to the hours of study and labor will be required.

The Steward and his family, and one of the Professors, reside in the Boarding House, and the rules of decorum and propriety observed in private families will be enforced.

TO INVENTORS, SCIENTIFIC MEN, PUBLISHERS, ETC.

It is proposed to collect a Museum of MODELS OF AGRICULTURAL IMPLEMENTS, and kindred Inventions in the Mechanic Arts. Inventors are therefore, urgently requested to forward to the Institution, models or samples of their Inventions. It is believed that this would prove an effective method of promoting the use of valuable implements.

Antique Specimens of implements, if forwarded, will be preserved as curious illustrations of progress in this department of invention.

It is proposed to form, as soon as possible, Cabinets of Geological, Mineralogical, Botanical, Zoological, Entomological and Ornithological Specimens, and Men of Science are requested to promote the object.

Agricultural and Statistical Periodicals, furnished by the Publishers, will be bound, and preserved in volumes in the Library.

State Boards of Agriculture, and Agricultural Societies, are requested to furnish their printed Transactions to the Library.

Publishers of works on Agriculture are requested to furnish copies to the Library.

REMARKS.

At the opening of the Institution, a SYSTEM OF LABOR, and a SYSTEM OF INSTRUCTION must be adopted, and they must be harmonized with each other. The Faculty will be embarrassed, at present, by the fact that the Professors, except one, are compelled to reside at Lansing, whereas the well being of the Institution requires their constant presence. In the absence of residences near the spot, the Board of Education have resolved to build four cheap Farm Cottages on the estate, which will be occupied by the Faculty on such terms as shall be prescribed by that Board.

The Farm being almost entirely in a state of nature, a very large amount of the labor of Students must at first be bestowed where it will yield little immediate profit. Had the Institution possessed a large tract of arable land, at the commencement, the earlier results would be far more profitable than they can now prove.

LIBRARY OF CONGRESS



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